



WindowsTM User Interface 1994- 1995

“End-User Experience”

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Windows User Interface Design Focus

- ◆ Focus on user *experience*
- ◆ Understandable *objects*
- ◆ System and application *integration*
- ◆ Support for the *tasks* people do
- ◆ Where we're headed
- ◆ Design process



The User Experience

How it feels to:

- ◆ Manage work
- ◆ Do work
- ◆ Communicate with others
- ◆ Create, understand, and find...

Information

...in other words, how it feels to use
the computer



The Windows-Based User Experience Is *Created By...*

- ◆ The system “shell”
- ◆ Applications
- ◆ ISV cooperation in a common vision
 - Use of standard system UI elements
 - Consistency among applications
 - A strong feel or “personality” to the system and applications UI
 - Innovative solutions to new problems
- ◆ New possibilities as UI needs drive technology forward

Supporting The Tasks People Do

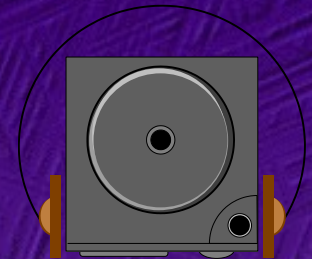
Our user interface must:

- ◆ Support the tasks users need to do... and make them easier!
- ◆ Make it obvious how to get the job done
- ◆ Work the way users *think* about working!!



Objects That People Understand

- ◆ Have consistent controls and behavior, with universal meaning
- ◆ Behave based on *what* they are and *where* they are
- ◆ Are differentiated by
 - What they can do
 - How well they do it
 - How well they work with others

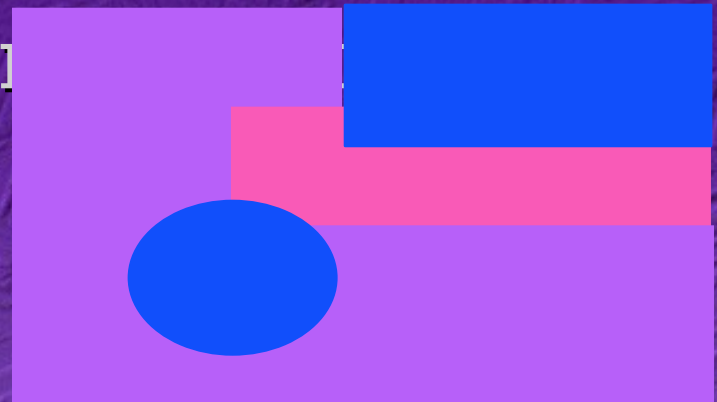


Integration: A System Without Seams

A seamless UI is created by...

- ◆ Applications working together
- ◆ The system and applications working together
- ◆ Focusing on the *solutions*, not the *applications*

OLE has started the



Windows User Interface:

Where We Are Today

The heritage of an application-based model

- ◆ “Windows” hovering on wallpaper
 - ◆ Lots of middle management
 - Program Manager and File Manager
 - ...and “thing” Managers and Control Panel
 - ◆ Independent applications
- too much computer junk in the way of getting things done**

Windows User Interface:

Where We're Headed

- ◆ The system defines a *user environment*
 - How things are created
 - How things are organized
 - How things are found
- ◆ *Objects* make the environment useful
- ◆ *Applications* create capabilities
 - To do new things
 - To work with new objects
- ◆ *Tasks* cross the boundaries that objects create

Evolution Of The UI Design Process

- ◆ Broader set of disciplines required in the design team
- ◆ Greater emphasis on graphic design
- ◆ More user involvement, earlier and throughout the design process
 - Observation of users in their workplace
 - Interviews with educators
 - Extensive usability testing
- ◆ Greater focus on getting underlying technology in line

Windows User Interface Design

- ◆ Renewed focus on user *experience*
- ◆ Understandable *objects*
- ◆ “Are my *what* integrated?”
- ◆ Support for the *tasks* people do

Striving for a user *environment*
that is
understandable, seamless, and
supportive
of the many ways people work.

Rollout Of The Windows

End-User Environment

"Chicago" in '94

- ◆ New look and feel debut
- ◆ New focus on supporting end-user *tasks*
- ◆ OLE integration
- ◆ Desktop integration
- ◆ Simplified network UI

"Cairo" in '95

- ◆ Continuing look and feel
- ◆ Focus on people working together
- ◆ OLE-based, fully extensible system user interface
- ◆ OLE forms and controls
- ◆ Query



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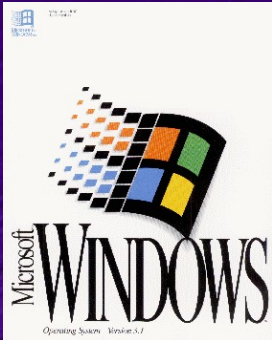
What's The Windows “*Chicago*” UI About?

- ◆ Focus on *user experience*
 - Object-oriented, document-centric
 - Includes a task-based component
- ◆ Focus on *design*
 - New visual appearance
- ◆ Provide “*helpers*” so applications can maintain and extend the metaphor
 - Shell extensibility: seamless integration

Who's It For?

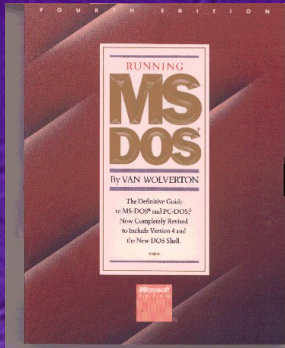
Windows 3.1-based users

- ◆ More efficient access to common tasks
- ◆ New features
- ◆ Conceptual model is easier to understand



New GUI users

- ◆ Entry-level tasks are discoverable
- ◆ Mechanical obstacles (double-click) are removed
- ◆ Conceptual obstacles (hierarchy, window management) are reduced



Central Elements

- ◆ *Desktop*: where the big containers are
- ◆ *Folders*: so users can organize their belongings
- ◆ *Documents*: not hidden inside some application you need to run...
- ◆ *Desktop toolbar*: quick access to common tasks
 - Start a program
 - Open a document, etc.

Demo!

So, While You're Here...

- ◆ Learn everything you can about how to make a great “Chicago” application

- Read the Style Guide, attend the “Chicago” UI oriented talks:

- What the New UI means to your application
- Application Style Guidelines
- OLE 2.0 UI Guidelines
- Windows Visual Design
- Windows Usability

- Understand everything you can about the “Chicago” “Points of Light”

- Talk to us all week!

...And After You Return

Build a great “Chicago” application!

- ◆ Exploit our new usage model -
be document-centric and
object-oriented
- ◆ Use our controls, dialogs and
extensibility mechanisms
- ◆ Put your application in front of
LOTS of users



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The Path From Windows “*Chicago*” UI To Windows NT “*Cairo*” UI

Common UI elements

- ◆ Visuals
- ◆ Desktop
- ◆ Explorer
- ◆ Property sheets
- ◆ Context menus
- ◆ Views
- ◆ Scraps

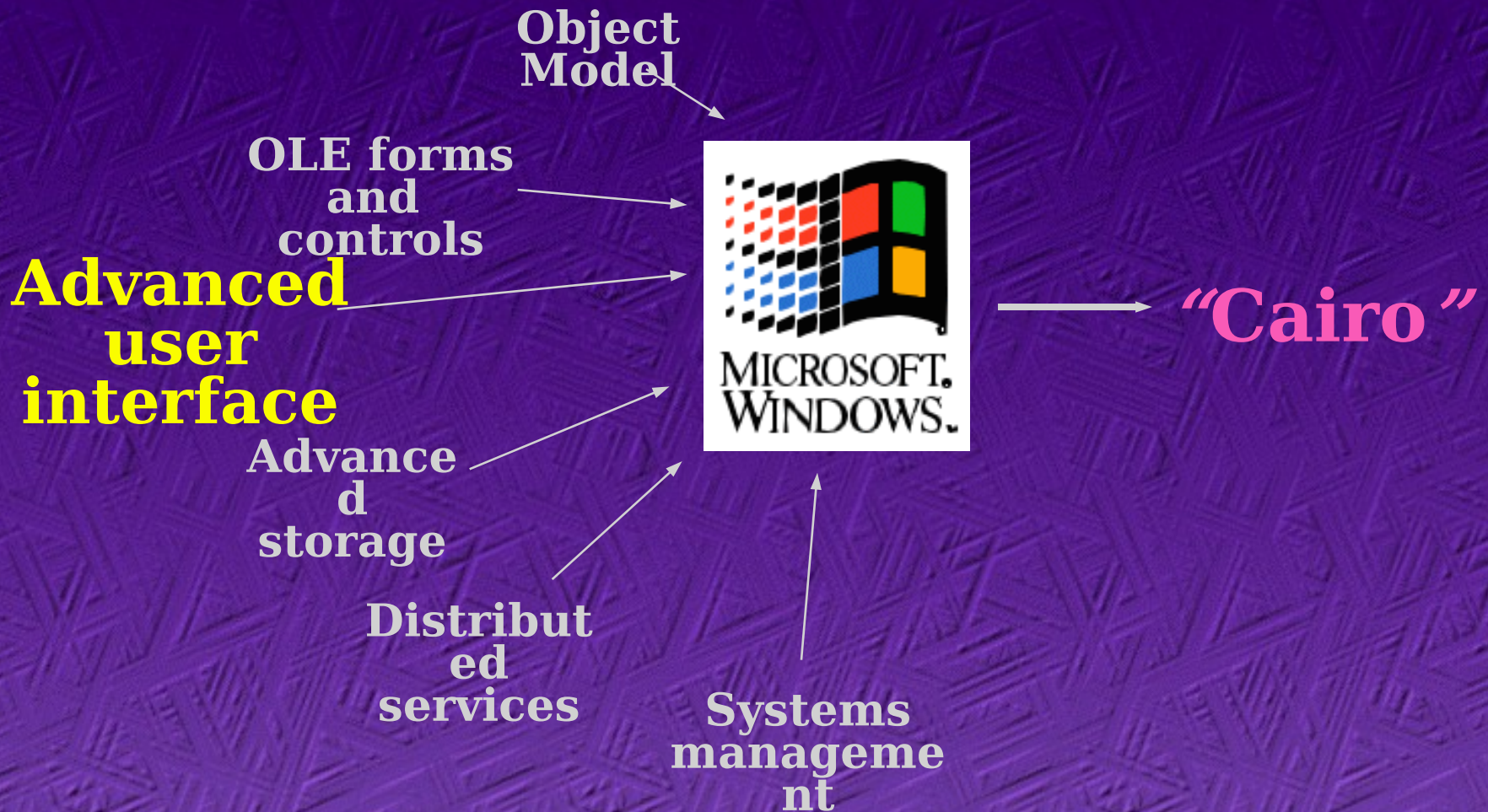
“Cairo” Adds

- ◆ Multitude of new features and extensions
- ◆ New folder views
- ◆ Improved UI for information access
- ◆ Full system UI extensibility
- ◆ OLE Automation support

Windows NT “*Cairo*” User Interface Goals

- ◆ Support the work people do ...
together
- ◆ *Information*
 - Creation, sharing, using, and finding
 - Regardless of what or where it is
- ◆ Even simpler and more natural for
new users
- ◆ One model for manipulating all
objects
- ◆ Even more fun and satisfying to use
- ◆ Innovation within an evolutionary

The Opportunity: Technology Integration



Windows NT “*Cairo*” User Interface Fundamental Advances

- ◆ **System/application integration**
 - Fully extensible system UI
 - OLE automation support
- ◆ ***Information***
 - Finding
 - Using
 - Creating

An Integrated System, Integrated Applications

- ◆ **Reuse of shell UI components**
- ◆ **Enhancing the capabilities of the shell through OLE-based extensibility**
 - **Finding and viewing information in the explorer**
 - **Describing objects through properties**
 - **Creating UI elements based on OLE forms**
- ◆ **Supporting OLE Automation in the shell**

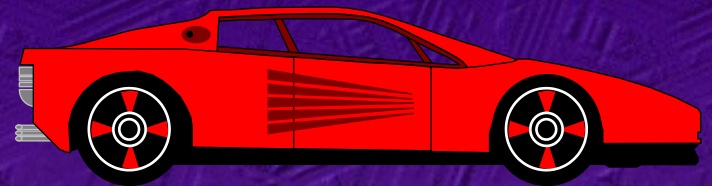
Finding Things

- ◆ Ask for what you want, the system brings it to you
 - All kinds of things
 - All kinds of places
- ◆ System support for all kinds of finding activities
 - “Searching”
 - “Researching”
 - “Browsing”
 - ...then keeping hold of, or using, of what you find
- ◆ An embedded part of work processes

Cruising The Information Highway

**“How nice the road is depends on what
◆The Information “Highway”
you drive”**

- Local storage
- Network storage
- Directory services
- Databases
- Many different information sources



Windows User Interface

◆ Windows NT “Cairo” *A user experience*

- A simple, consistent model for objects and information

◆ *Extensibility*

- Of system UI components through OLE

◆ *Seamlessly integrated*

- System and applications

◆ *Finding information so FAST*

- That it changes the way people work

Demonstration